

# **EXHIBIT A**

**Supplemental Expert Report of Laura S. Welch, MD, FACP, FACOEM**

**SUPPLEMENTAL EXPERT REPORT OF  
LAURA S. WELCH, MD, FACP, FACOEM,  
ON BEHALF OF THE CLAIMANTS REPRESENTED BY  
THE LAW FIRM OF DIES AND HILE L.L.P.**

January 12, 2007

In my expert report of December 2005 I express opinions about the health effects of exposures to asbestos, including non-occupational and/or environmental exposure and exposure to in-place asbestos-containing materials (ACM) in buildings. I also discussed my opinions concerning the epidemiology of the health effects of exposure to asbestos, other applicable medical and scientific literature, and my clinical experience in diagnosing patients with asbestos related diseases.

On December 14, 2006, W.R. Grace's attorney took my deposition, during which I testified regarding my December 2005 report as well as my qualifications. In the deposition, I testified about the health hazards associated with friable ACM. I described the process by which asbestos in surface dust can be continuously re-suspended in the air if that dust is in an area through which people are walk or where some airflow disturbs the dust; I explained how re-suspension of this asbestos-containing surface dust exposes building occupants and/or workers to airborne asbestos fibers. I described the usefulness of surface dust sampling as an adjunct to the visual inspection by a trained inspector of friable ACM. I also testified regarding my qualifications as an occupational and environmental physician to interpret the results of surface dust sampling.

It is my opinion that asbestos exposure causes almost all mesotheliomas. In support of my opinion I referenced a paper by Leigh, et al<sup>1</sup>. The authors calculated time trends in mesothelioma incidence for Australia from 1945 to 2000 using data from the Australian Mesothelioma Surveillance Program/Register, and found that mesothelioma incidence rates increased four to five fold in 19 years in Australia. When cases classified in the registry as "no history of exposure" were reviewed again in detail, the authors found that only 19% of all mesothelioma cases had no known history of exposure to asbestos. Further, among those cases with no known history of exposure, 81% of such cases had fiber lung burdens which demonstrated exposure to asbestos. Overall, 95% of the mesothelioma cases had a history of exposure to asbestos or a fiber burden that documented asbestos exposure. The data presented in this paper are consistent with other evidence<sup>2</sup>; Hillerdal has estimated that if there is a background incidence rate it is much less than 1 per million per year.<sup>3</sup> The incidence of

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<sup>1</sup> Leigh, J., Davidson, P., Hendrie, L., & Berry, D., 2002, Malignant Mesothelioma in Australia, 1945-2000, Amer J Indus Med 41:188-201.

<sup>2</sup> Mark, E.J. & Yokoi, T., 1991. Absence of Evidence for a Significant Background Incidence of Diffuse Malignant Mesothelioma Apart From Asbestos Exposure. Third Wave of Asbestos Disease: Exposure to Asbestos in Place. Annals of NY Acad of Sciences, Volume 643.

<sup>3</sup> Hillerdal, G., 1999, Mesothelioma: cases associated with non-occupational and low dose exposures, Occup Environ Med 56:505-513.

mesothelioma death rates have continued to rise in this country and I may refer to the SEER data in my testimony.<sup>4</sup>

It is my opinion that all forms of asbestos cause mesothelioma. My opinion has wide support in the medical and scientific literature. In addition to the Dement data discussed in my deposition, the Leigh paper referenced here, I refer to other scientific papers and the opinion of national and international public health and regulatory agencies to support my opinion on the carcinogenic potency of chrysotile.<sup>5</sup>

It is my opinion that asbestos fibers shorter than 5 um in length are carcinogenic. In my deposition I refer to research by Stayner and Dement that supports this opinion.

In addition to those matters discussed in my report, I may refer in my testimony to the range of exposure measurements by personal air sampling for airborne fiber levels concerning building maintenance and/or other workers performing typical activities which are discussed in the OSHA record.<sup>6</sup>

Exposure to asbestos from friable ACM in place can cause and does cause asbestos related disease.

I may supplement this report if necessary.



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Laura S. Welch, MD, FACP, FACOEM

January 12, 2007

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<sup>4</sup> Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System.

<sup>5</sup> Li, L., Sun, T.D., Zhang, X., Lai, R.N., Li, X.Y., Fan, X.J., & Morinaga, K., 2004, Cohort Studies on Cancer Mortality Among Workers Exposed Only to Chrysotile Asbestos: as Meta-analysis, Biomedical and Environmental Sciences 17, 459-468. The findings of the Li, et al. Meta-Analysis Study demonstrate that there are excessive risks of lung cancer and mesothelioma among workers exposed only to chrysotile. Additionally, several review articles discuss the literature in greater detail: Smith, A.H. & Wright, C.C., 1996, Chrysotile Asbestos is the Main Cause of Pleural Mesothelioma, Amer J Indus Med 30:252-266; Lemen, R.A., 2004, Chrysotile Asbestos as a Cause of Mesothelioma, Int J Occup Environ Health 10:233-239. Also, World Health Organization (2006). Position on Asbestos; International Programs on Chemical Safety ("IPCS"), Environmental Health Criteria 203, WHO (1998); and, Report on Carcinogens (2005). Asbestos CAS No. 1332-21-4, Eleventh Addition (DHHS).

<sup>6</sup> 29 CFR Parts 1910 and 1926, June 20, 1986. Occupational Exposure to Asbestos, Tremolite, Anthophyllite and Actinolite, Fed Reg 51:119.